



Introduction to the Course / Lecture #0

Fundamentals of IoT

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BOLOGNA BUSINESS SCHOOL
Alma Mater Studiorum Università di Bologna

Introduction to the Course

Fundamentals of IoT

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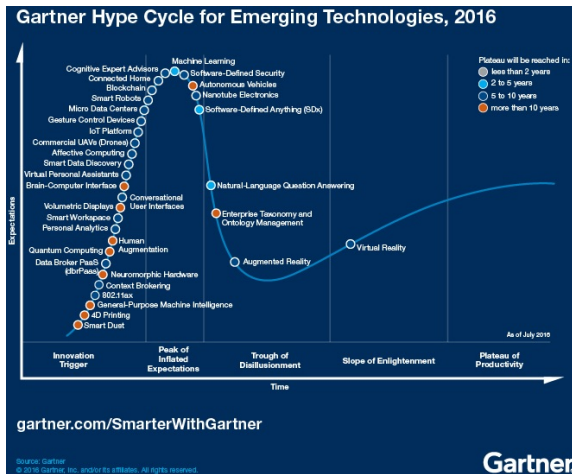
Master in Digital Technology Management / Internet of Things
2019/2020



Next in Line...

- 1 Emerging Technologies
- 2 Content & Exam

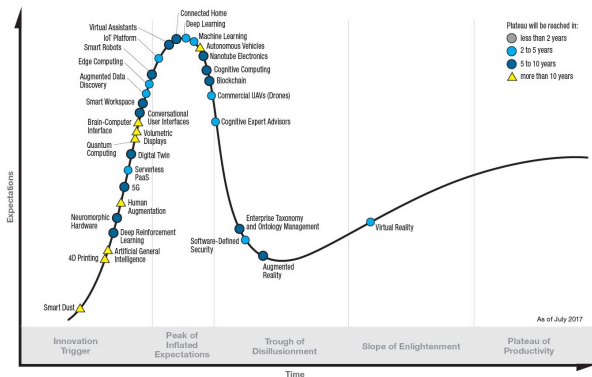
Where is IoT? I



<https://www.gartner.com/smarterwithgartner/3-trends-appear-in-the-gartner-hype-cycle-for-emerging-technologies-2016/>

Where is IoT? II

Gartner **Hype Cycle** for Emerging Technologies, 2017



[gartner.com/SmarterWithGartner](https://www.gartner.com/SmarterWithGartner)

Source: Gartner (July 2017)

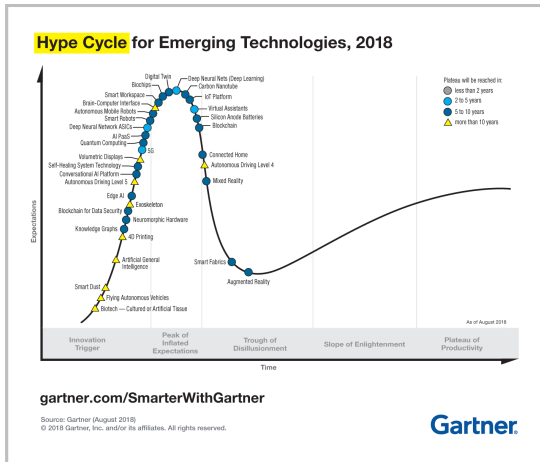
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Gartner 2017

<https://www.gartner.com/smarterwithgartner/top-trends-in-the-gartner-hype-cycle-for-emerging-technologies-2017/>



Where is IoT? III



2018

<https://www.gartner.com/smarterwithgartner/5-trends-emerge-in-gartner-hype-cycle-for-emerging-technologies-2018/>



Where is IoT? IV

Hype Cycle for Digital Government Technology, 2019



[gartner.com/SmarterWithGartner](https://www.gartner.com/SmarterWithGartner)

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Gartner 2019

<https://www.gartner.com/smarterwithgartner/>

[top-trends-from-gartner-hype-cycle-for-digital-government-technology-2019//](https://www.gartner.com/smarterwithgartner/top-trends-from-gartner-hype-cycle-for-digital-government-technology-2019/)

Why IoT, Then?

Technically...

- there are visible *drivers* that push technology (and, society) along a very discernible path
- there are a huge number of *business* opportunities
- there are clear *visions* of the possible futures
- all apparently paving the way towards the *fulfilment* of the promises of the Internet of Things

Are We There, Yet?

Of course not

- technology is not mature
- the market is not really ready, yet
- the supporting overall infrastructure has still to be fully developed
- designers have yet to understand how to exploit the full potential of the IoT
- engineers have no available methodologies and mature tools and technologies to exploit
- ...

So, Why this Course?

Things are already happening

- first products
- some standards
- investments
- and, the AI case—telling us that, whenever it will happen, it will be *fast*
- so, we need to be ready
- also knowing that there are lots of opportunities even before the IoT explosion

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Content

- visions & perspectives
- basic bricks—technology
- abstractions & methods—design
- case studies—application scenarios

Exam

- written test (1,5 h)
 - 1 hour (multiple answer questions)
 - 1/2 hour free-text questions
- with neither printed material nor devices

Alternative

- project
- for individuals, or 2-person teams
- a written report on a potential “smart thing” in the IoT landscape
- to be proposed to the professor soon

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